BEFORE THE
POLLUTION CONTROL HEARINGS BOARD
STATE OF WASHINGTON

IN THE MATTER OF WHITEBLUFF PRAIRIE COALITION, Appellant, v. STATE OF WASHINGTON, DEPARTMENT OF ECOLOGY, PAUL GISSELBERG, and NEIL R. FOSSEEN, JR., Respondents.	PCHB No. 86-5 FINAL FINDINGS OF FACT, CONCLUSIONS OF LAW, AND ORDER

THIS MATTER, the appeal of the approval of an application to withdraw public ground water, came on for hearing before the Pollution Control Hearings Board; Lawrence J. Faulk, Chairman, Wick Dufford (presiding), and Gayle Rothrock, Member, on April 24, and 25, 1986 and May 21, 1986, in Spokane, Washington.

Appellant Whitebluff Prairie Coalition was represented pro se by its spokesperson Mary Benham. Respondent Department of Ecology appeared through V. Lee Okarma Rees, Assistant Attorney General.

Respondents Paul Gisselberg and Neil R. Fosseen, Jr., were represented by Jerry R. Neal, Attorney at Law. The proceedings were reported by reporters Denise Micka and Kenneth J. Wittstock.

Witnesses were sworn and testified. Exhibits were admitted and examined. Arguments were made by post-hearing written memoranda. From the testimony, evidence and contentions of the parties, the Board makes these

FINDINGS OF FACT

I

The Whitebluff Prairie Coalition is an association of residents of an, at present, relatively sparsely populated neighborhood into which respondents Gisselberg and Fosseen seek to introduce a housing development. The area is in Spokane County on a plateau atop steep basalt bluffs which bound the west side of the Spokane River. The City of Spokane lies to the east, across the river.

II

The Department of Ecology is a state agency with responsibility for administering the allocation of public ground waters in the state.

III

Gisselberg and Fosseen filed an application for a ground water permit (No. G3-27811) on April 26, 1984. They requested authority to withdraw 160 gallons per minute (gpm), limited to 84.6 acre feet per year, continuously for community domestic supply. The source was to be two wells within the SW 1/4 of Section 33, Township 26 North, Range 42 East Willamette Meridian. If developed to the maximum requested,

the proposed withdrawal could supply over 50 homes.

IV

The Gisselberg and Fosseen application was protested by a group called the Great Northern Area Residents Association, an organization including many neighborhood residents who are also members of the appellant Coalition. The protest asserted that ground water supplies in the area are marginal and that the Gisselberg/Fosseen development would intefere with existing domestic wells. Fears were also expressed that the development would result in withdrawals exceeding annual recharge of a limited aquifer. The protest further questioned the impact on ground water quality of the septic tank and drainfield waste systems contemplated.

V

On December 20, 1985, Ecology issued a Report of Examination recommending that the application be approved with conditions. The major condition was that the wells be cased and sealed to elevation 1760 feet above mean sea level, a depth 400 feet below land surface elevation at the well sites.

VI

The Coalition filed its appeal of the Report of Examination (and accompanying agency approval) to this Board on January 8, 1986, raising issues similar to those put forward in the initial protest of the application and further asserting that Ecology had failed to perform an adequate investigation.

VII

The positions of the parties to this proceeding are based on the opinions of experts in geology and hydrology. The Coalition's expert reached conclusions about the ground water resource which differ from those of the expert retained by Gisselberg and Fosseen. Ecology's in-house expert reviewed the work of the other two and performed his own evaluation. He reached conclusions similar to those of Gisselberg and Fosseen's expert.

All three of these evaluators of the potential effects of the proposed new wells used much of the same basic data, relying heavily on water well drillers logs for existing wells in the area. From these an idea of the local geologic profile was derived as well as information about relative static water levels.

VIII

The neighborhood in question, locally called the Great Northern school area, is basalt scabland with a thin covering of soil over bedrock. Precipitation is 15 to 20 inches a year. No surface streams traverse the plateau nearby.

The Coalition advanced the theory that a single aquifer underlies the vicinity and that this aquifer is very small owing to the existence of a ground water divide which confines recharge to a limited area within the immediate neighborhood. According to this view, recharge comes only from a portion of the precipitation over about 290 acres. The Coalition's expert estimated that recharge to the aquifer is restricted to around 21 acre feet per year. The

proposed Gisselberg and Fosseen development would, he concluded, severely overdraft the aquifer and drastically reduce the water levels in surrounding wells.

IX

Ecology and the applicants posited the existence of two distinct aquifer systems, one near land surface and another deeper in the earth. The shallow aquifer, they see as localized and of limited capacity. However, the deep aquifer, they believe, is a part of a much larger regional system receiving recharge from a considerable area beyond the immediate Great Northern school neighborhood. It is from this source that the Gisselberg-Fosseen development would draw.

Ecology's expert estimated at least a 30 square mile recharge area, recharged at the rate of about 117 acre feet per square mile in dry years and about 192 acre feet per square mile in wetter years. The direction of flow of ground water in this regional system is generally toward the Gisselberg and Fosseen site. He concluded that more than enough water would be available in the deep aquifer to accommodate the 84.6 acre feet annual maximum for the proposed development while still leaving enough water in that source to accommodate the modest level of pre-existing deep aquifer development. He anticipates no static water level declines.

X

The basalts in the region west of Spokane are interspersed by a sedimentary interbed known as the Latah formation. The Latah layer (not a significant water bearing zone itself) forms a barrier to the

movement of water between the saturated basalts above and below it. The "single aquifer" theory in this case is based on the assertion that the Latah is discontinuous in the area in question. This assertion was sharply disputed by Ecology's geologist who testified that while the formation varies in thickness it is continuous over an extensive area including the neighborhood in question.

We were not persuaded that the geology of the Great Northern school area differs significantly from the geology of the larger region in which it is located and were convinced that the Latah formation performs essentially the same aquifer separating function here as it does elsewhere.

Comparison of both static water level data and temperature information supports this view and, accordingly, we find that there are two distinct aquifers underlying the Gisselberg/Fosseen site and the nearby environs.

XI

The "limited recharge" hypothesis depends on the existence of a local ground water divide which prevents the lateral movement of water into the area penetrated by the Gisselberg and Fosseen wells, and thus restricts recharge to downward movement of precipitation falling on lands overlying the immediate vicinity.

The data presented was not adequate to support the existence of such a local divide. The evidence preponderates in favor of a larger regional recharge area for the deep aquifer with a gradient generally toward the Great Northern School area.

Thus, we find that Ecology's recharge estimates are most likely correct and that there is an adequate supply of water at the Gisselberg/Fosseen site to supply the projected withdrawals without affecting static water levels in the same aquifer.

XII

One of the Gisselberg/Fosseen wells already exists, having been drilled in June of 1984. As recorded by the water well driller the well is 535 feet deep and the static level stands at 420 feet below land surface. It obtains water from the area's deep aquifer.

Pump test data for this well shows that it is incapable of producing more than about 15 gallons per minute on a sustained yield basis. Calculations of the aquifer dewatering impact of pumping from this well indicate that theoretical withdrawals from it at a much higher rate would have a negligible effect on water levels in the nearest deep aquifer well.

Moreover, there is no evidence of any downward leakage from the shallow aquifer to the deeper one. Vertical leakage, if any, would be a slight amount moving upward. Therefore, casing and sealing off the upper aquifer would prevent any adverse effects on shallow wells by wells penetrating the deep aquifer.

XIII

The parties agreed that 1500 gallons per day is an appropriate guideline for domestic water consumption for a household in the area. The application as approved would allow only two wells. Given the limited yield of the first Gisselberg/Fosseen well and limited yields

from other wells in the area, it is highly unlikely that the construction of a second well would bring aggregate withdrawals to the allowed 160 gallons per minute level.

The number of units in the housing development is restricted by the amount of water available. If a total of 30 gallons per minute were obtained under the instant approval, less than 15 housing units could be served, if the wells were pumped 12 hours a day.

XIV

The soils on the proposed development property are shallow. On the basis of preliminary soils analysis gathered from test holes, the developers believe that, with limited exceptions, the site is suitable for construction of on-site sewage disposal systems. However, no rigorous analysis of the potential for pollution of the aquifers in the area has been conducted; nor has there been any thoroughgoing exploration of alternative treatment possibilities.

No evidence was presented that withdrawal and use of ground water, as proposed, would have an adverse effect on public water quality. But health authorities have not yet rendered a final determination regarding septic tank and drainfield construction or other methods of sewage disposal for the Gisselberg/Fosseen project.

XV

The Gisselberg/Fosseen site is located several miles from both the nearest sanitary sewer line and the nearest public water supply. There are no imminent plans for extending these systems to the property in question.

XVI

This application is not a run-of-the-mill request for domestic use of ground water. Both because of the physical complexities of the area and the level of controversy surrounding the proposal, Ecology's investigation was thorough and thoughtful. Existing geological mapping and source material was consulted. This information was checked by field observations of road cuts and quarry sites. Well logs were studied and well cuttings observed. Pump test data was analyzed. Water level measurements, where possible, were obtained. The reports of experts for both opponents and proponents were evaluated. Independent calculations were made. Health officials were consulted.

Although more information would always be welcome in predicting how a given ground water development will work out, we find that Ecology possessed sufficient material to make a reasoned and informed judgment on the application in question.

XVII

Any Conclusion of Law which is deemed a Finding of Fact is hereby adopted as such.

From these Findings the Board makes the following

CONCLUSIONS OF LAW

I

The Board has jurisdiction over these issues and these parties. Chapters 43.21B and 90.44 RCW.

II

The ground water code incorporates the provisions of the surface water code relative to the processing of applications for permits to appropriate. RCW 90.44.060.

Under RCW 90.03.290 the Ecology department has a duty "to investigate all facts relevant and material to the application" and to determine 1) whether water is available, 2) whether the proposed use is beneficial, 3) whether existing rights will be impaired, and 4) whether the appropriation will be detrimental to the public interest. Stempel v. Department of Water Resources, 82 Wn. 2d 109, 508 P.2d 166 (1973).

III

The "public interest" criterion of RCW 90.03.290 is, to some degree, fleshed out by the declaration of water management fundamentals in RCW 90.54.020. Among the policies there stated is a prohibition, in general, against water allocations which will result in degraded water quality. Thus, pollution potential is a required consideration in processing a ground water application. Stempel, supra at 119.

IV

The "water availability" and "impairment of rights" criteria of RCW 90.03.290 are given more specific content in connection with ground water by the provisions of RCW 90.44.070 and RCW 90.44.130.

RCW 90.44.070 prohibits the issuance of a permit for withdrawals "beyond the capacity of the underground bed or formation. . . to

yield such water within a reasonable or feasible pumping lift." The clear implication is that a lowering of the water to a static level unreasonably deep for the exercise of prior rights in the same aquifer would be an impairment of such rights.

RCW 90.44.130 reinforces the priority principle as the basis for adjusting user conflicts and states that a prior appropriator "shall enjoy the right to have any withdrawals by a subsequent appropriator of ground water limited to an amount that will maintain and provide a safe sustaining yield in the amount of the prior appropriation."

RCW 90.44.130 does not necessarily mean that well interference may never be permitted, but when read together with RCW 90.44.070, establishes that an existing right is impaired by well interference which a prior appropriator cannot overcome by modifications satisfying his established usage within a reasonable or feasible pumping lift. See Shin and Masto v. DOE, et al., PCHB No. 648-652. (January 29, 1975).

V

Following a pre-hearing conference on March 20, 1986, the following issues were preserved:

1. Whether the investigation performed by the Department of Ecology was adequate under the relevant statutory standards?

2. Whether the proposed water withdrawals will result in ground water contamination and thereby violate the public interest?

3. Whether the proposed water withdrawals will result in overdraft of public waters preventing maintenance of a safe sustaining yield to prior appropriators?

4. Whether the proposed water withdrawals are valid absent implementation of RCW 90.44.400 through 420 for the area in question?

VI

Ecology's decision on a water appropriation permit is not a matter of applying fixed quantitative standards. It is, within limits, discretionary. Schuh v. Department of Ecology, 100 Wn. 2d 180, 667 P.2d 64 (1983). At the least, this means that within the statutory standards, there is room for the agency to exercise expert judgment.

We conclude that the investigation requirement on the agency is a requirement to consider sufficient information about the physical situation and the status of established rights to make a reasoned and informed judgment on the application in question. In some situations, this may require Ecology to undertake extensive studies on its own to develop additional data. Here, however, we hold that the investigation and evaluation performed by the agency was thorough enough to satisfy the legal requirement.

VII

Appellant Coalition did not show that the proposed water withdrawals would, more likely than not, result in ground water contamination. After consultation with health authorities, Ecology had no reason to think such contamination is a probable result. However, since a complete analysis of this possibility has not yet been made, the commencement of withdrawals should be expressly conditioned on receipt of relevant approvals by health officials. We hold that a permit so conditioned will not violate the public interest.

VIII

The preponderance of evidence is that neither static water level declines nor impermissible well interference is likely to result from the proposed Gisselberg/Fosseen withdrawals. Thus, no overdraft of public waters preventing maintenance of a safe sustaining yield to prior appropriators is likely. Accordingly, we hold that existing rights will not be impaired by the instant approval.

IX

At the outset of the hearing, Ecology moved to dismiss the issue of whether implementation of RCW 90.44.400 through 420 for the area in question is a prerequisite to the approval of this application. We granted the motion. These provisions, additions to the ground water code in 1985, are related to the area-by-area development of ground water management programs. The Legislature contemplated a gradual phasing-in of those programs. Absent emergent circumstances, we can detect no intention to impose a moratorium on the processing of pending applications until the contemplated programs are completed.

X

Any Finding of Fact which should be deemed a Conclusion of Law is hereby adopted as such.

From these Conclusions of Law the Board enters this

ORDER

The approval by the Department of Ecology of Ground Water Application No. G3-27811, filed by respondents Gisselberg and Fosseen, is affirmed. The permit issued in response thereto should contain an express condition complying with Conclusion VII hereof in addition to those recommended in the Report of Examination.

DONE at Lacey, Washington this 12th day of September, 1986.

POLLUTION CONTROL HEARINGS BOARD

WICK DUFFORD, Lawyer Member

9/12/86

LAWRENCE J. FAULK, Chairman

(Did not participate)
GAYLE ROTHROCK, Vice Chairman